

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims:**

1. Cancelled

2. (Currently Amended) A magnetoresistive head comprising a magnetoresistive layer which converts magnetic signals to electric signals, a pair of electrodes for allowing an electrically sensing current to flow across said magnetoresistive layer, upper and under gap layers placed over and beneath said pair of electrodes and said magnetoresistive layer, and upper and under shield layers, one of which is placed over said upper gap layer and the other is placed beneath said under gap layer, wherein at least either of said upper and under gap layers is made of varistor material.

3-4. Cancelled

5. (Previously Presented) The magnetoresistive head according to claim 2, wherein said magnetoresistive head employs a material consisting of ZnO, SiC, BaTiO, Si, or SrTiO films or films whose main element is one of these substances as said varistor material.

6-7. Cancelled

8. (Currently Amended) The magnetoresistive head according to claim 2, wherein said magnetoresistive head employs a material which exhibits varistor characteristics and is a multi layered structure made up of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, Bi<sub>2</sub>O<sub>5</sub>, MnO, NiO, CoO, Fe-O, TiO<sub>2</sub>, HfO<sub>2</sub>, ZrO<sub>2</sub>, or Nb<sub>2</sub>O<sub>5</sub> films or oxide films whose main element is one of these substances in combination with films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films as the above varistor material.

9. Cancelled

10. (Currently Amended) ~~The~~ A magnetoresistive head ~~according to claim 7,~~  
comprising a magnetoresistive layer which converts magnetic signals to electric signals, a pair of electrodes for allowing an electrically sensing current to flow across said magnetoresistive layer, upper and under gap layers placed over and beneath said pair of electrodes and said magnetoresistive layer, and upper and under shield layers, one of which is placed over said upper gap layer and the other is placed beneath said under gap layer, wherein said pair of electrodes and at least either of said upper and under shield layers are

electrically connected by varistor material that also  
interconnects said pair of electrodes;

wherein said magnetoresistive head employs a material  
which exhibits varistor characteristics and is multi layered  
structure made up of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, Bi<sub>2</sub>O<sub>5</sub>, MnO, NiO, CoO,  
Fe-O, TiO<sub>2</sub>, HfO<sub>2</sub>, ZrO<sub>2</sub>, or Nb<sub>2</sub>O<sub>5</sub> films or oxide films whose  
main element is one of these substances in combination with  
films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films  
as the above varistor material; and

wherein said material is formed in a multi-layer wherein  
the thickness of a film made of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, Bi<sub>2</sub>O<sub>5</sub>,  
MnO, NiO, CoO, Fe-O, TiO<sub>2</sub>, HfO<sub>2</sub>, ZrO<sub>2</sub>, or Nb<sub>2</sub>O<sub>5</sub> or an oxide  
film whose main element is one of these substances is 5 nm or  
less.

11. (Currently Amended) ~~The~~ A magnetoresistive head  
comprising a magnetoresistive layer which converts magnetic  
signals to electric signals, a pair of electrodes for allowing  
an electrically sensing current to flow across said  
magnetoresistive layer, upper and under gap layers placed over  
and beneath said pair of electrodes and said magnetoresistive  
layer, and upper and under shield layers, one of which placed  
over said upper gap layer and the other placed beneath said

under gap layer, wherein at least either of said upper and  
under gap layers is made of varistor material;

wherein said magnetoresistive head employs a material  
which exhibits varistor characteristics and is multi layered  
structure made up of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, Bi<sub>2</sub>O<sub>5</sub>, MnO, NiO, CoO,  
Fe-O, TiO<sub>2</sub>, HfO<sub>2</sub>, ZrO<sub>2</sub>, or Nb<sub>2</sub>O<sub>5</sub> films or oxide films whose  
main element is one of these substances in combination with  
films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films  
as the above varistor material; and

~~The~~ a magnetoresistive head ~~according to claim 8,~~ wherein  
said material is formed in a multi-layer wherein the thickness  
of a film made of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, Bi<sub>2</sub>O<sub>5</sub>, MnO, NiO, CoO,  
Fe-O, TiO<sub>2</sub>, HfO<sub>2</sub>, ZrO<sub>2</sub>, or Nb<sub>2</sub>O<sub>5</sub> or an oxide film whose main  
element is one of these substances is 5 nm or less.

12. (Currently Amended) ~~The~~ A magnetoresistive head  
~~according to claim 9, comprising a magnetoresistive layer~~  
which converts magnetic signals to electric signals, a pair of  
electrodes for allowing an electrically sensing current to  
flow across said magnetoresistive layer, upper and under gap  
layers placed over and beneath said pair of electrodes and  
said magnetoresistive layer, and upper and under shield  
layers, one of which is placed over said upper gap layer and  
the other is placed beneath said under gap layer, wherein

leads of said upper and under shield layers and leads extended out of lead terminals of said electrodes are connected by varistor material on the side where a magnetoresistive element does not exist, when viewed from the lead terminals of said pair of electrodes;

wherein said magnetoresistive head employs a material which exhibits varistor characteristics and is multi layered structure made up of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, Bi<sub>2</sub>O<sub>5</sub>, MnO, NiO, CoO, Fe-O, TiO<sub>2</sub>, HfO<sub>2</sub>, ZrO<sub>2</sub>, or Nb<sub>2</sub>O<sub>5</sub> films or oxide films whose main element is one of these substances in combination with films selected from among ZnO, SiC, BaTiO, Si, and SrTiO films as the above varistor material; and

wherein said material is formed in a multi-layer wherein the thickness of a film made of Al<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, Bi<sub>2</sub>O<sub>5</sub>, MnO, NiO, CoO, Fe-O, TiO<sub>2</sub>, HfO<sub>2</sub>, ZrO<sub>2</sub>, or Nb<sub>2</sub>O<sub>5</sub> or an oxide film whose main element is one of these substances is 5 nm or less.

13. Cancelled

14. (Previously Presented) A magnetic head assembly comprising the magnetoresistive head according to claim 2 in combination with an inductive thin-film head.

15-16. Cancelled

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17. (Previously Presented) A magnetic read/write device  
with the magnetic head assembly according to claim 14  
installed thereon.

18. Cancelled